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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,249	02/11/2004	Ji-Sook Kim	P57026	1106

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EXAMINER

KARIKARI, KWASI

ART UNIT PAPER NUMBER

2686

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,249

Applicant(s)

KIM ET AL.

Examiner

Kwasi Karikari

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on February 11 2004 is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. Applicant uses " wireless terminal 230,250 and 270" on pg. 16, lines 1 and 4. Examiner suggests using "wireless terminal 220, 240 and 260".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being unpatentable over Booton (U.S. 6,337,857), (hereinafter Booton).

Regarding **claim 1**, Booton discloses a method for operating a service of an exchange apparatus for performing a wired phone terminal subscriber service, the method comprising the steps of:

performing wired and wireless (plurality of phones including mobile station 21, Fig. 2) service registrations (configuration of telephone and their computers are set by users, see col. 11, lines 7-16) in each of the extension subscribers by endowing at least one of a plurality of wired terminals and public and private mobile communication terminals with a wired phone number in accordance with a subscriber registration application (incoming calls from PSTN cause simultaneous ringing on plurality of phones, see col. 7, lines 1-9 and lines 27-41); and

making a call to a wired terminal corresponding to the corresponding wired phone number when an arbitrary wired phone number is called, and making a call to the corresponding public and private mobile communication terminal through a mobile communication network when there is public and private mobile communication terminal to be called simultaneously interconnectively to the wired phone number (incoming calls from PSTN cause simultaneous ringing on plurality of phones and answering the call at different location including a mobile location, see col. 7, lines 1-9 and lines 27-41).

Regarding **claim 2**, Booton discloses the method according to claim 1, wherein the extension subscriber comprises a first extension subscriber using only the wired terminal service (see phones 7 and 8 in Fig. 2 and col. 6, lines 61-65).

Regarding **claim 3**, Booton discloses the method according to claim 1, wherein the extension subscriber comprises a second extension subscriber (mobile station 21 in Fig. 2) using only said mobile communication terminal service which is provided using a virtual wired phone number (each phone number corresponds to a dummy or virtual telephones in the CTI, see col. 7, lines 35-50).

Regarding **claim 4**, Booton discloses the method according to claim 1, wherein the extension subscriber comprises a third subscriber using both the wired terminal service and the mobile communication terminal service provided using the virtual wired phone number (the system shown in Fig. 2 enables incoming call from PSTN to cause simultaneous ringing at plurality phones, see col. 7, lines 1-9 and each phone number corresponds to a dummy or virtual telephones in the CTI, see col. 7, lines 35-50).

Regarding **claim 5**, Booton discloses the method according to claim 1, wherein the subscriber registration application requests at least one of the subscriber's personal information, accounting information, a phone number of the wired terminal, an individual phone number of the mobile communication terminal, and a virtual wired phone number of the mobile communication terminal (a phone user have a phone number associated with the location of their phone, for example a mobile number, a hotel number or an office number, including a dummy or virtual telephones numbers corresponding to each phone see col. 10, line 57- col. 11, line 16 and col. 7, lines 35-50).

Regarding **claim 6**, as recited in claim 5, Booton's teaching of the logging in and the monitoring of member's incoming calls (see col. 10, lines 57-67), meets the claim limitation of a personal information of the subscriber includes at least one of a name, an address, and an identification number.

Regarding **claim 7**, Booton discloses the method according to claim 1, wherein the wired and wireless service includes at least one of the wired terminal service, a mobile communication terminal service, and a wired and wireless interconnecting

service (the system shown in Fig. 2 enables incoming call from PSTN to cause simultaneous ringing at plurality phones including a mobile station, see col. 7, lines 1-9.

Regarding **claim 8**, Booton discloses the method according to claim 1, wherein the step of performing the wired and wireless service registrations comprising:

registering the wired phone number with which the wired terminal constructing an extension network is endowed, the wired phone number with which the public and private mobile communication terminal is endowed, and a mobile identifier number with which the public and private mobile communication terminal is endowed from the public mobile communication network (GSM 20, Fig.2) in a database as extension subscriber information (plurality of phones including mobile station 21, and the list of numbers are stored in the data base of the CTI, see col. 7. lines 27-45 and Figs. 2 and 3).

Regarding **claim 9**, Booton discloses the method according to claim 8, wherein the step of performing the wired and wireless service registrations further comprising:

registering first identification information indicating whether an arbitrary wired phone number is a number which is connected to a terminal or a number which is not connected to a terminal (when a call is received, the CTI is asked to give the list of numbers corresponding to a potential recipient of the call, see col. 7, lines 27-45),

second identification indicating whether the wired phone number uses a multiple terminating service or not, and a wired phone number of the public and private mobile communication terminal which is called by the multiple forwarding function in said database (connecting the incoming call to the answering calls or initiating a conference and the list of numbers are in the database 40, see col. 7, lines 53-64 and Fig. 3).

Regarding **claim 10**, Booton discloses the method according to claim 1, wherein, when a call is requested by the arbitrary public and private mobile communication terminal, the method further comprises the steps of:

receiving an outgoing phone number (the incoming terminating call, see col. 7, lines 35-57) from the public and private mobile communication terminal (the plurality of phones, see Fig. 2, items 7,8 and 21) and the mobile identifier number of the public and private mobile communication terminal (inherent in system of Fig. 2) endowed from the public mobile communication network;

determining whether the private mobile communication service is used or not using the outgoing phone number (the terminating call is completed through CTI-enabled switch 25, see col. 7, lines 35-57); and

transmitting the wired phone number with which the corresponding public and private mobile communication terminal is endowed using a caller identification, when the private mobile communication service is used as a result of the determination (sending the CTI route request signal including dialed directory number of terminating call, see col. 4, lines 28-32).

Regarding **claim 11**, Booton discloses method according to claim 10, wherein, when a call is requested by the arbitrary public and private mobile communication terminal, the method further comprises:

transmitting the mobile identifier number of the public and private mobile communication terminal which is received from the public and private mobile communication terminal using a caller identification, when the public mobile

communication service is used as a result of the determination (the identities of a plurality of computer terminals linked in a network are stored in association with respective directory numbers of telephone terminal, see col. 5, lines 42-61).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-20 are rejected under U.S.C. 103(a) as being unpatentable over Booton in view of Cyr (U.S. 6,223,055), (hereinafter Cyr).

Regarding claim 12, as recited in claim 1, Booton fails to teach transferring a ring signal to make a call through a private base station which provides the public and private mobile communication terminal with a wireless environment; and transferring the ring signal to call the public and private mobile communication terminal through the public mobile communication network, when there is no response from the public and private mobile communication terminal for a predetermined time.

Cyr teaches a unified wired and wireless telephone system (see col. 3, lines 31-42 and Fig. 1). Cyr further discloses that the wireless base station 130 cooperate to simultaneously ring the wired extension 150 and the associated wireless terminal 12 even when the wireless terminal is outside the in-building communication system 110 (see col. 3, line 56- col. 8, line 2).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides an out-of-range service.

Regarding **claim 13**, as recited in claim 1, Booton fails to disclose the method of performing a billing according to a usage of the wired and wireless services in each of the extension subscribers.

Cyr teaches a unified wired and wireless telephone system (see col. 3, lines 31-42 and Fig. 1). Cyr further discloses that subscriber and employer are billed according to personal and business services respectively (see col. 5, lines 46-64).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for users.

Regarding **claim 14**, as recited in claim 13, Cyr further discloses the step of performing the billing applies an extension billing rate used when a speech is made between extension subscribers using the private mobile communication network (the subscriber and the employer are billed according to personal and business services respectively, see col. 5, lines 46-64).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for users.

Regarding **claim 15**, as recited in claim 13, Cyr further discloses the step of performing the accounting applies an external line billing rate used when a speech is made between extension subscribers using the public mobile communication network (airtime and other feature charges are applied when employees uses the system while they are offsite, see col. 5, lines 16-33).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for employees.

Regarding **claim 16** as recited in claim 13, Cyr further discloses performing the billing according to a usage of the wired and wireless services in each of the extension subscribers further comprised of charging according to the wired and wireless services in each of the extension subscribers being performed (the subscriber and the employer are billed according to personal (offsite service) and business service (onsite service) services respectively, see col. 5, lines 46-64).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for employees.

Regarding **claim 17** as recited in claim 13, Cyr further discloses the private mobile communication network is used when the charge is performed, an extension billing rate may be applied, and when the public mobile communication network is used, external line billing rate may be applied (airtime and other feature charges are applied when employees uses the system while they are offsite, see col. 5, lines 16-33 and

Fig. 1).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for employees.

Regarding **claim 18**, Booton discloses a computer-readable medium having computer-executable instructions for performing a method, comprising:

performing wired and wireless (plurality of phones including mobile station 21, Fig. 2) service registrations (configuration of telephone and their computers are set by users, see col. 11, lines 7-16) in each of a plurality of extension subscribers by endowing at least one of a plurality of wired terminals and public and private mobile communication terminals with a wired phone number in accordance with the subscriber registration application (incoming calls from PSTN cause simultaneous ringing on plurality of phones, see col. 7, lines 1-9 and lines 27-41); and

making a call to a wired terminal corresponding to the corresponding wired phone number when an arbitrary wired phone number is called, and making a call to the corresponding public and private mobile communication terminal through a mobile communication network when there is public and private mobile communication terminal to be called simultaneously interconnectively to the wired phone number (incoming calls from PSTN cause simultaneous ringing on plurality of phones and answering the call at different location including a mobile location, see col. 7, lines 1-9 and lines 27-41), but fails to teach performing a billing according to a usage of the wired and wireless services in each of the extension subscribers.

Cyr teaches a unified wired and wireless telephone system (see col. 3, lines 31-42 and Fig. 1). Cyr further discloses that subscriber and employer are billed according to personal and business services respectively (see col. 5, lines 46-64).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for users.

Regarding **claim 19**, as recited in claim 18, Booton further discloses receiving the subscriber registration application for wired and wireless services from the arbitrary extension subscriber before performing wired and wireless service registrations (configuration of telephones and their associated computers could be set by the user to enable system's procedure to be carried out, see col. 11, lines 4-17).

Regarding **claim 20**, Booton discloses a computer-readable medium having stored thereon a data structure comprising:

a first field containing data representing receiving a subscriber registration (configuration of telephone and their computers are set by users, see col. 11, lines 7-16) application for wired and wireless (plurality of phones including mobile station 21, Fig. 2) services from an arbitrary extension subscriber;

a second field containing data representing performing wired and wireless service registrations in each of the extension subscribers by endowing at least one of a plurality of wired terminals and public and private mobile communication terminals with a wired phone number in accordance with the subscriber registration application (configuration of telephone and their computers are set by users, see col. 11,

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lines 7-16);

a third field containing data representing making a call to a wired terminal corresponding to the corresponding wired phone number when an arbitrary wired phone number is called, and making a call to the corresponding public and private mobile communication terminal through a mobile communication network when there is public and private mobile communication terminal to be called simultaneously interconnectively to the wired phone number (incoming calls from PSTN cause simultaneous ringing on plurality of phones and answering the call at different location including a mobile location, see col. 7, lines 1-9 and lines 27-41); and

a fifth field containing data representing, when a call is requested by the arbitrary public and private mobile communication terminal (incoming calls from PSTN cause simultaneous ringing on plurality of phones, see col. 7, lines 1-9 and lines 27-41), the method further comprises of:

a sixth field containing data representing receiving an outgoing phone number (the incoming terminating call, see col. 7, lines 35-57) from the public and private mobile communication terminal and the mobile identifier number of the public and private mobile communication terminal (inherent in system of Fig. 2) endowed from the public mobile communication network;

a seventh field containing data representing determining whether the private mobile communication service is used or not using the outgoing phone number (the terminating call is completed through CTI-enabled switch 25, see col. 7, lines 35-57);

an eighth field containing data representing transmitting the wired phone number with which the corresponding public and private mobile communication terminal

(the plurality of phones, see Fig. 2, items 7,8 and 21) is endowed using a caller identification, when the private mobile communication service is used as a result of the determination (sending the CTI route request signal including dialed directory number of terminating call, see col. 4, lines 28-32) ;and

a ninth field containing data representing transmitting the mobile identifier number of the public and private mobile communication terminal which is received from the public and private mobile communication terminal using the caller identification, when the public mobile communication service is used as a result of the determination (the identities of a plurality of computer terminals linked in a network are stored in association with respective directory numbers of telephone terminal, see col. 5, lines 42-61), but fails to teach a fourth field containing data representing performing a billing according to a usage of the wired and wireless services in each of the extension subscribers.

Cyr teaches a unified wired and wireless telephone system (see col. 3, lines 31-42 and Fig. 1). Cyr further discloses that subscriber and employer are billed according to personal and business services respectively (see col. 5, lines 46-64).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Cyr into the system of Booton for the benefit of achieving a unified wired and wireless system that provides economical benefit for users.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Widergen et al. (U.S. 5,890,064) teaches a mobile telecommunications network having integrated wireless office system.

O' Neil et al. (U.S. 5,963,864) teaches method and system for automatic connection telephone calls to multiple device having different directory numbers.

Harlow et al., (U.S. 5,206,901) teaches a method and apparatus for alerting multiple telephones for an incoming call.

Gillespie (U.S. 6,014,377) teaches a system and method for an integrated wireline/wireless service using private branch exchange lines.

Ghoi et al., (U.S. 6,775,556) teaches device and method for processing call between private exchange network and mobile communication network.

Nelson (U.S. 6,529,593) teaches prepaid phone service for both wired and wireless telecommunication devices.

Offer (U.S. 6,954,630) teaches a method for location-based billing for mobile communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571- 272 5905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwasi Karikari
Patent Examiner.

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